

1223-011 South Chequest Watershed Project – Final Report

Financial Accountability

The 2013 Iowa Watershed Improvement Review Board (WIRB) funding helped the Davis County Soil and Water Conservation District implement several practices across the landscape to contain and filter out sediment, phosphorus, and nitrogen from entering the South Chequest Creek. WIRB funds also allowed the Davis SWCD to hire an employee to assist with administration of technical activities in the watershed.

The Davis SWCD expended WIRB funds for the project activities as planned in the original application submitted to the WIRB. The summary of watershed improvement funds can be found below in Table 1, a complete administrative spreadsheet for the term of the grant agreement is included with this report.

	Table 1. Summary of Watershed Improvement Funds			
Grant Agreement Budget Line Item	Total Funds Approved (\$)	Amended Funds (\$)	Total Funds Expended (\$)	Available Funds (\$)
Personnel	\$52,600.00	\$52,600.00	\$52,600.00	\$0.00
Grade Stab Structure	\$31,900.00	\$32,247.00	\$32,247.30	(\$0.30)
Water Sediment Basins	\$11,250.00	\$11,250.00	\$8,850.63	\$2,399.37
Terraces	\$4,250.00	\$3,589.88	\$3,589.88	\$0.00
Totals	\$100,000.00	\$99,687.00	\$97,287.81	\$2,712.16

In February of 2013 the Davis SWCD learned that South Chequest was awarded \$1 million in implementation dollars from the Iowa Flood Center. The Iowa Flood Center and IIHR—Hydroscience and Engineering were awarded funds from the U.S. Department of Housing and Urban Development (HUD) to prepare watershed mitigation projects directed toward flood damage reduction in select Iowa watersheds. The specific goals of the project include: Maximize soil water holding capacity from precipitation; Minimize severe soil erosion and sand deposition during floods; Manage water runoff in uplands under saturated soil moisture conditions; Reduce and mitigate structural and nonstructural flood damage. The approved WIRB application budget included funding from EQIP in the amount of \$103,799 and IFIP in the amount of \$4,500.00 with a WIRB contribution to the overall project of 38%. With the funding from the Iowa Flood Center the focus on other partner dollars wasn't as necessary as when the WIRB application was submitted.

Table 2 provides a breakdown of the total project funded by source and shows a comparison from the approved project budget as to the actual dollars spent.

Table 2. Summary of Total Project Funding				
Funding Source	Approved Application Budget (\$)	Amended Application Budget(\$)	Total Spent	% of Total Funding Spent on Projects
WIRB	\$100,000.00	\$99,687.00	\$97,287.81	9%
EQIP	\$103,799.00	\$39,181.00	\$39,180.83	4%
IFIP	\$4,500.00	\$18,719	\$36,169.30	4%
Iowa Flood Center	\$0.00	\$1,036,368.00	\$637,497.12	62%
Landowner	\$51,900.00	\$266,469.00	\$217,464.67	21%
Total	\$260,198.00	\$1,460,423.00	\$1,027,599.73	100%

Watershed Improvement Fund Contribution: Approved application budget: 38%

Actual: 9%

The funding received from the Iowa Flood Center allowed the project to come in well under the original WIRB budget. EQIP and state cost share funded projects that were implemented in the watershed were documented regardless if they received partner funds from WIRB.

Environmental Accountability

A total of 1,384 acres were treated with best management practices. The project goals included 6 grade stabilization structures, 30 water and sediment control basins, and 5,000 feet of terraces. These goals were amended to account for the Iowa Flood Center funding to 29 grade stabilization structures, 99 water and sediment control basins, and 6,350 feet of terraces. There were 19 grade stabilization structures completed, 108 water and sediment control basins, and 6,350 feet of tile outlet terraces constructed. There are an additional 10 grade stabilization structures that will be completed spring/summer 2016. Attachment 1 illustrates the BMP's installed in the WIRB priority area from 2013 thru current. These practices combined provide a sediment delivery reduction of 3,688 tons per year to the river as well as a reduction of 4,795.18 pounds per year of phosphorus. Table 3 below provides a comparison of goals versus accomplishments.

Table 3. Practices and Activities								
Practice	Unit	Approved Application Goal	Amended Goals	Accomplishment	Percent Complete	Approved Application Goal (sediment tons/yr)	Accomplishment (sediment reduction tons/year)	Percent Complete
Grade Stab	No.	6	29	19	316%	2,276	2,894	127%
W&S Basin	No.	30	99	108	360%	300	611	203%
Terrace	Ft.	5,000	6,350	6,350	127%	40	183	457%

The project was able to surpass the application goals for sediment reduction due to the additional funding received. Projects were evaluated prior to approval for funding, field visits where active classic and ephemeral gully erosion taking place was documented, designed sediment storage volumes were used to calculate sediment reductions.

Program Accountability

The Davis SWCD completed the following activities in support of the original application.

- Hired an employee to work with a team of technical advisors, field staff, Davis SWCD, and partners who were responsible for planning, implementing, and assessing the completion and impact of project activities.
- The SWCD, partner representatives, and project coordinator, reviewed projects and the implementation of project activities and accomplishment of project objectives. The SWCD submitted the required project plans of work, narrative reports, and financial ledgers.
- Promoted the use of partner funding sources such as EQIP, IFIP, and low interest loans.
- Put together information and presentations to show the progress and accomplishments.
- The funding from the Iowa Flood Center was administered through the Iowa Economic Development Authority (IEDA) and Community Development Block Grant (CDBG). This was not only the first time for a SWCD to utilize this type of funding but it was also the first time that IEDA-CDBG had participated in this type of project. A process was developed to deliver a user friendly project for private landowners. In doing so we were able to fully utilize funding from IEDA-CDBG to install additional BMP's. Projects were grouped together and let for bid, this was also another requirement of the funding source. As a result the Chequest project received more funds in one year than a project typically would in 10 years using typical USDA and State programs.



Left: Dozers work to construct a grade stabilization structure. This structure was completed September 2015 and has a drainage area of 86 acres.



Left: this grade stabilization structure was completed late September 2015. Seeding and mulching of the disturbed area is shown. This structure quickly filled as the drainage area is 157 acres. This is a DNR permitted site.



Left: Group photo of the intern tour that took place May 26, 2015. Interns toured structures in South Chequest and Fox River Watersheds.

Summary

The achievements of the South Chequest Watershed Project have far surpassed what anyone could have imagined would have been accomplished in two years' time. What started as a \$260,000 project finalized as a \$1,027,599.73 project. While the initial explanation of the bid process to the landowners was met with opposition from a few the majority were willing to partner with the project. There are an additional 10 grade stabilization structures that will be completed spring/summer 2016, adding an additional \$330,000 to the project. The ability to partner funding sources and provide landowners 75% cost share has aided in the landowner support and participation of the project. While the project was able to accommodate a large number of projects there are still landowners who want to implement BMP's on their ground.

The Davis SWCD intends to seek funding to treat other areas of the Chequest Watershed in the near future.